



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/057,357	01/24/2002	Christopher F. O'Hare	A34871	2008
21003	7590	05/20/2004	EXAMINER	
BAKER & BOTTS 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			SINGH, SUNIL	
			ART UNIT	PAPER NUMBER
			3673	

DATE MAILED: 05/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/057,357

Applicant(s)

O'HARE, CHRISTOPHER F.

Examiner

Sunil Singh

Art Unit

3673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Altemus '357 in view of Japanese document (2001-271363).

Altemus discloses a module comprising a concrete block (10), at least one through hole (14) which is partially filled with concrete (see col. 1 line 58; col. 2 line 36, col. 4 line 39), at least one projection (38), at least one recess (42). Altemus discloses the invention substantially as claimed.

However, Altemus is silent about his concrete column comprising a mixture which is specifically formulated for underwater placement.

Japanese document '363 teaches a concrete column comprising a mixture which is specifically formulated for underwater placement (see abstract, Fig. 3 and attached definition of "grout"). It would have been considered obvious to one of ordinary skill in the art to modify Altemus by using specifically formulated underwater placement concrete as taught by Japanese document for the concrete column disclosed by Altemus since such an arrangement would allow for a retaining wall to be built adjacent a river because concrete that is specifically formulated for underwater

Art Unit: 3673

placement sets up faster and would not deteriorate rapidly when exposed to water.

3. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Makram '110 in view of Japanese document (2001-271363).

Makram discloses a module comprising a concrete block, at least one through hole which is partially filled with concrete (see Fig. 7, page 1 left col. Line 23, page 3 left col. Lines 38-70), at least one projection, at least one recess (see Figs. 1-3, 7). Makram discloses the invention substantially as claimed. However, Makram is silent about his concrete column comprising a mixture which is specifically formulated for underwater placement. Japanese document '363 teaches a concrete column comprising a mixture which is specifically formulated for underwater placement (see abstract, Fig. 3 and attached definition of "grout"). It would have been considered obvious to one of ordinary skill in the art to modify Makram by using specifically formulated underwater placement concrete as taught by Japanese document for the concrete column disclosed by Makram since such an arrangement would allow for a retaining wall to be built adjacent a river because concrete that is specifically formulated for underwater placement sets up faster and would not deteriorate rapidly when exposed to water.

4. Claims 1, 2, 6-10, 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Altemus '357 in view of Karnas '489 or Suzuki '057 and Japanese document (2001-271363).

Altemus discloses the invention substantially as claimed. However,

Altemus is silent about his concrete block/module being used as artificial reef. Further, Altemus is silent about his concrete column comprising a mixture which is specifically formulated for underwater placement. Karnas and Suzuki both teach concrete block/module being used as artificial reef (see Figs.1, 2 and 22 respectively). Japanese document '363 teaches a concrete column comprising a mixture which is specifically formulated for underwater placement (see abstract, Fig. 3 and attached definition of "grout"). It would have been considered obvious to one of ordinary skill in the art to modify Altemus and use his concrete block/module as an artificial reef as taught by either Karnas or Suzuki since such a structure would more effectively withstand tidal current meaning not topple over or move thus defeating its intended purpose. In addition it would have been considered obvious to one of ordinary skill in the art to modify Altemus by using specifically formulated underwater placement concrete as taught by Japanese document for the concrete column disclosed by Altemus since such an arrangement would allow for the reef to be formed in situ.

With regards to claim 7, Altemus (as modified by Karnas or Suzuki and Japanese document '363) is silent about the reinforcing rod being fiberglass. Reinforcing rods being made out of fiberglass are well known and old in the art (see US PAT. PUB. 2003/0009970). It would have been considered obvious to one of ordinary skill in the art to further modify the

modified Altemus by making the reinforcing rods out of fiberglass since this would prevent rusting.

With regards to claims 9 and 10, Altemus (as modified by Karnas or Suzuki and Japanese document '363) is silent about his projections and recess being frustoconical and hemispherical in shape. Projections and their corresponding recesses being frustoconical and hemispherical in shape are well known and old in the art. It would have been considered obvious to one of ordinary skill in the art to modify the modified Altemus by making his projections and recesses frustoconical or hemispherical in shape since this is a mere design choice.

5. Claims 1, 3-5, 7, 9, 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Makram '110 in view of Karnas '489 or Suzuki '057 and Japanese document (2001-271363).

Makram discloses the invention substantially as claimed. However, Makram is silent about his concrete block/module being used as artificial reef. Further, Makram is silent about his concrete column comprising a mixture which is specifically formulated for underwater placement. Karnas and Suzuki both teach concrete block/module being used as artificial reef (see Figs. 1, 2 and 22 respectively). Japanese document '363 teaches a concrete column comprising a mixture which is specifically formulated for underwater placement (see abstract, Fig. 3 and attached definition of "grout"). It would have been considered obvious to one of ordinary skill in the art to modify Makram and use his concrete block/module as an

artificial reef as taught by either Karnas or Suzuki since such a structure would more effectively withstand tidal current meaning not topple over or move thus defeating its intended purpose. In addition it would have been considered obvious to one of ordinary skill in the art to modify Makram by using specifically formulated underwater placement concrete as taught by Japanese document for the concrete column disclosed by Makram since such an arrangement would allow for the reef to be formed in situ.

With regards to claim 7, Makram (as modified by Karnas or Suzuki and Japanese document '363) is silent about the reinforcing rod being fiberglass. Reinforcing rods being made out of fiberglass are well known and old in the art (see US PAT. PUB. 2003/0009970). It would have been considered obvious to one of ordinary skill in the art to further modify the modified Makram by making the reinforcing rods out of fiberglass since this would prevent rusting.

With regards to claim 10, Makram (as modified by Karnas or Suzuki and Japanese document '363) is silent about his projections and recess being hemispherical in shape. Projections and their corresponding recesses being hemispherical in shape are well known and old in the art. It would have been considered obvious to one of ordinary skill in the art to modify the modified Makram by making his projections and recesses hemispherical in shape since this is a mere design choice.

**Response to Arguments**

6. Applicant's arguments filed 1/23/2004 have been fully considered but they are not persuasive. With regards to claim 11 applicant argues that both Altemus and Makram do not teach an artificial reef module and it was implicitly recognized by the Examiner. First of all, claim 11 does not claim an artificial reef but instead claims a **module for use in assembling an artificial reef**. It should be noted that claim 11 calls for a module **for use in assembling an artificial reef** and therefore a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Applicant argues that the passageways of Altemus are for the installation of plumbing or electrical lines. Altemus clearly teaches that the passageways can be filled with reinforced rods or concrete or both (see col. 1 line 58; col. 2 line 36, col. 4 line 39). Applicant argues that Makram discloses brick or block for use in general building and wall construction as well as in the production of refractory or fire bricks adapted for the building of furnaces and for furnace linings. Once again the examiner would like to point out to applicant that claim 11 calls for a module for use in assembling an artificial reef and therefore a recitation of the intended use of the claimed invention must result in a structural difference



Art Unit: 3673

between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

To further strengthen the examiner's position that the blocks of both Altemus and Makram are capable of being used as artificial reef the examiner would like to direct applicant to US Pat. 5908265 wherein "waste concrete" is used as artificial reef. The waste concrete can consist of concrete with different strengths (psi), chemical composition (e.g. different admixtures) etc and such concrete can be used as artificial reefs. Applicant's argument that Japanese document does not teach that his concrete (grout) is specifically formulated for **stable** underwater placement is far more limiting than the claimed subject matter. It should be noted that the limitation of "specifically formulated for underwater placement" is very broad and the concrete (grout) disclosed by the Japanese document is used clearly underwater; therefore, in as much applicant's concrete (grout) is specifically formulated for underwater placement then the Japanese concrete (grout) is specifically formulated for underwater placement. Applicant argues that grout simply means "thin mortar" for filling spaces and the purpose of his concrete columns are for providing stable underwater fixation of the blocks. The examiner would like to direct applicant to the Japanese abstract wherein the blocks used therein are for forming an underwater caisson and concrete (grout) is used to form the columns in between the block structure as well as the perimeter thus meeting the requirement of providing stable underwater fixation of the blocks since caissons are stable structures.

Art Unit: 3673

7. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the knowledge generally available to one of ordinary skill in the art would lead the skilled artisan to the brick/block art for making/forming an artificial reef wherein the artificial reef is made out of brick/block. It should be noted that a basement wall, a retaining wall and a fence all could be formed using the same brick/block while they are subjected to different forces. Since it is well known in the artificial reef art that artificial reefs are made out of brick/blocks, it makes it perfectly analogous for the skilled artisan to look to the brick/block art when making an artificial reef. Further evidence of looking to the brick/block art when forming an artificial reef is provided in the areas searched in US Patent to Karnas wherein the block/brick art US class 52 was searched while looking to make an artificial reef. Once one decides on a particular brick/block for use as an artificial reef, then it would be obvious to the skilled artisan **to use water compatible material** meaning the concrete brick/blocks and columns would be formed with material for underwater usage this is where the teaching of Japanese document comes

Art Unit: 3673

into play and the use of fiberglass reinforcing rods to prevent rusting (see US Pub 2003/0009970 paragraph [0062]).

8. Applicant argues that projections and their corresponding recesses being frustoconical are not well known. The examiner is puzzled by such assertion since Makram clearly shows frustoconical shaped projections and corresponding recesses. To further emphasis such well known structure the examiner would like to direct applicant to US Patent 4107894.

Applicant argues that projections and their corresponding recesses being hemispherical are not well known. To emphasis such well known structure the examiner would like to direct applicant to US Patent 2688245, which has been around since the 1950's.

#### ***Conclusion***

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Art Unit: 3673


10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Pats. 3602000, 4129008 both teach underwater grout as being concrete grout.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sunil Singh whose telephone number is (703) 308-4024. The examiner can normally be reached on Monday through Friday 8:30 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Shackelford can be reached on (703) 308-2978. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2168.

Sunil Singh

  
Patent Examiner  
Art Unit 3673

SS SS  
May 15, 2004